

CM What is claimed is:

Claim 1. In an electronic still image camera comprising:

an optical lens,

a shutter mechanism operably associated with said lens,

an array of discrete light sensing pixel elements, each pixel element being responsive when said shutter mechanism is operated to incident illumination from a subject image radiating through said lens and shutter mechanism to generate an analog picture information signal corresponding to said subject image,

pixel multiplexing means responsive to each array of pixel elements for separating an output from each pixel element into its primary color components,

analog to digital converter means responsive to the outputs of said pixel multiplexing means for converting said analog signals into corresponding digital data information signals,

digital data compression means for applying  
a digital data compression algorithm to said  
25 digital data information signals to generate  
compressed digital data information signals, and  
removably mounted memory means for storing  
said compressed digital data information signals,  
the improvement comprising operator  
30 selectable control means for controlling digital  
data format compatability between said compressed  
digital data information signals and one of a  
plurality of operator selectable types of computer  
apparatus.

35 Claim 2. The improved electronic still  
image camera of Claim 1 further comprising switch  
activated control means for improving the image  
signal storage efficiency by selectively  
determining the amount of storage of said removable  
40 memory means to be associated with storage of each  
picture image.

Claim 3. The improved electronic still  
camera of Claim 1 further comprising picture image  
resolution determining means for selectively  
45 determining which of a predetermined set of  
compression algorithm parameters are to be applied  
to said digital data information signals in  
response to an operator activated switch means.

Claim 4. The improved electronic still  
50 camera of Claim 3 further comprising record marking  
means for generating and recording with each said  
image digital data information signals a coded mark  
indicating the compression algorithm parameters  
utilized in compressing said image digital data  
55 information signals.

Claim 5. The improved electronic still  
image camera of Claim 1 wherein said removable  
memory means comprises digital data diskette means  
having thereon a plurality of selectively  
60 addressable magnetic sector and track sections for  
recording said compressed digital data information  
signals.

65 Claim 6. The improved electronic still  
image camera of Claim 1 further comprising memory  
formatting means operable during the camera  
power-up routine to automatically format said  
memory means in accordance with one of a plurality  
of operator selectable type of computer apparatus.

70 Claim 7. The improved electronic still  
image camera of Claim 5 wherein said digital data  
compression algorithm of said digital data  
compression means is also recorded in its entirety  
on said diskette means and further comprising  
75 record marking means for recording a digital coded  
mark for indicating the compression algorithm  
parameters utilized in compressing each said image  
digital data information signal.

80 Claim 8. The improved electronic still  
image camera of Claim 1 further comprising audio  
recording means for simultaneously recording audio  
signals associated with each subject image and  
memory file correlation means for associating in

85 said memory means the respective storage locations  
of said audio signals with its associated image  
signals.

90 Claim 9. The improved electronic still  
image camera of Claim 3 further comprising record  
marking means for recording a unique mark  
indicating the compression algorithm parameters  
utilized in compressing each said image digital  
data information signal.

95 Claim 10. An electronic still image camera  
comprising  
an optical lens,  
a shutter mechanism operably associated  
with said lens,  
an array of discrete light sensing pixel  
elements, each pixel element being responsive when  
said shutter mechanism is operated to incident  
100 illumination from a subject image radiating through  
said lens to generate an analog picture information  
signal corresponding to said subject image,

105 pixel multiplexing means responsive to said array of pixel elements for separating an output from each pixel element into its primary color components,

110 analog to digital converter means responsive to the outputs of said pixel multiplexing means for converting said analog signals into corresponding digital data information signals,

115 digital data compression means for applying a digital data compression algorithm to said digital data information signals to generate selectively compressed digital data information signals,

removably mounted memory means for temporarily storing said compressed digital data information signals,

120 and selectable control means for controlling digital data format compatability between said compressed digital data information signals and one of a plurality of predetermined selectable types of computer apparatus.

125           Claim 11. The electronic still image  
camera of Claim 10 further comprising memory  
formatting means operable to automatically format  
said data stored in memory means in accordance with  
one of a plurality of operator selectable data  
130 storage formats.

          Claim 12. The electronic still image  
camera of Claim 10 further comprising image  
resolution determining means for selectively  
determining which of a predetermined set of  
135 compression algorithm parameters of said digital  
data compression means are to be applied to said  
digital data information signals.

          Claim 13. The electronic still image  
camera of Claim 12 further comprising record  
140 marking means for marking each said image digital  
data information signal to indicate which one of  
said predetermined set of compression algorithm  
parameters were utilized to compress said image  
digital data information signals.

145        Claim 14. The electronic still image  
camera of Claim 10 wherein said removably mounted  
memory means comprises digital data diskette means  
and further comprising selectable diskette  
formatting for automatically formatting said  
150        diskette means in accordance with one of a  
plurality of operator selectable data format types.

          Claim 15. A process for storing an  
electronically sensed video image of an electronic  
still image camera comprising the steps of:

155        Generating an analog signal corresponding  
to the radiant light incident on a predetermined  
number of light sensing pixel elements to generate  
analog image signals,

160        Converting the analog image signals into  
digital electronic information signals wherein a  
distinct digital electronic signal corresponds to  
the analog image signals corresponding to the  
intensity of radiant light falling on the light  
sensing pixel elements,



165 Temporarily storing the digital electronic  
information signals,

170 Compressing the digital electronic  
information signals by applying a data compression  
algorithm to sort digital electronic information  
signals,

Selecting one of a plurality of  
predetermined data formats corresponding to a like  
plurality of data formats of a like number of types  
of computer apparatus, and

175 Storing said compressed digital electronic  
information signals in said predetermined data  
format in a digital memory.

Claim 16. The process of Claim 15 further  
including the steps of:

180 Detecting the presence or occurrence of one  
or more of a predetermined number of conditions,  
and

185 Selectively activating said generating of  
the analog signal in response to the detection of  
said condition.

Claim 17. The process of Claim 15 further including the steps of:

Recording audio signals which relate to said analog image signals, and

190 Storing said audio signals in operable conjunction with said digital information signals such that both the audio and image signals can be retrieved.

Claim 18. An electronic video still image camera data format translator comprising:

195 Input means for producing electronic analog image signals corresponding to the outputs of a plurality of light sensing pixel elements corresponding to a predetermined number of discrete  
200 image sensing elements.

Analog to digital converter means for converting said analog image signals into corresponding digital image signals corresponding to said array of such predetermined number of  
205 discrete image sensing elements.

Buffer means for storing image forms.

Compression selection means for applying a predetermined compression algorithm to said digital image signals.

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Format selection means for determining one of a number of predetermined data formats in which said compressed digital image is to be stored and

Removable memory means for storing said digital images in said predetermined data format.

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Claim 19. The electronic still image camera of Claim 10 wherein said pixel multiplexing means further comprises parallel processing switching means for simultaneously parallel processing the output of each such pixel element.

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Claim 20. The electronic still image camera of Claim 10 further comprising remote activation means for selectively activating said camera.

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